

CLAIMS**WHAT IS CLAIMED IS:**

1. An air conditioning apparatus which is provided with a heating medium circuit for the flow of heating medium and which includes in the heating medium circuit a plurality of heat exchangers for effecting heat exchange between a heating medium and an airstream, wherein at least one heat exchanger is made up of an adsorption heat exchanger with an adsorbent supported on a surface thereof.
- 10 2. The air conditioning apparatus of claim 1,
wherein the heating medium circuit includes at least two air heat exchangers which mainly perform air sensible heat processing and a single adsorption heat exchanger which mainly performs air latent heat processing.
- 15 3. The air conditioning apparatus of claim 1,
wherein the heating medium circuit includes a single air heat exchanger which mainly performs air sensible heat processing and at least two adsorption heat exchangers which mainly perform air latent heat processing.
- 20 4. The air conditioning apparatus of claim 1,
wherein the heating medium circuit includes at least two air heat exchangers which mainly perform air sensible heat processing and at least two adsorption heat exchangers which mainly perform air latent heat processing.
- 25 5. The air conditioning apparatus of claim 1,
wherein the heating medium circuit is made up of a refrigerant circuit through which a refrigerant is circulated to thereby perform a vapor compression refrigeration cycle.

6. The air conditioning apparatus of claim 1,
wherein the heating medium circuit is made up of a cold and hot water circuit for the
flow of cold and hot water.

5 7. The air conditioning apparatus of claim 1,
wherein the heating medium circuit is made up of a refrigerant circuit through which a
refrigerant is circulated to thereby perform a vapor compression refrigeration cycle and a
cold and hot water circuit for the flow of cold and hot water.

10 8. The air conditioning apparatus of claim 1,
wherein said air conditioning apparatus is provided with a control unit which switches
the flow of heating medium in the heating medium circuit and the distribution of air to
thereby perform (a) a moisture absorbing operation in which, while cooling an adsorbent in
an adsorption heat exchanger, moisture in an airstream flowing through the adsorption heat
15 exchanger is adsorbed by the adsorbent and (b) a moisture releasing operation in which,
while heating an adsorbent in an adsorption heat exchanger, moisture is released to an
airstream flowing through the adsorption heat exchanger.

9. The air conditioning apparatus of claim 8,
20 wherein the control unit is provided with a switching interval setting part for setting,
depending on the latent heat load, a time interval at which switching between the moisture
absorbing operation and the moisture releasing operation is accomplished.

10. The air conditioning apparatus of claim 9,
25 wherein the switching interval setting part is configured such that as the latent heat
load increases the time interval at which switching between the moisture absorbing
operation and the moisture releasing operation is accomplished is set to a lower setting
value.

11. The air conditioning apparatus of claim 1,

wherein said air conditioning apparatus includes a heat exchange element for
effecting heat exchange between a first airstream and a second airstream and wherein at
5 least one of the first and second airstreams is adsorption air or regeneration air prior to its
passage through the adsorption heat exchanger.

12. The air conditioning apparatus of claim 1,

wherein a latent heat processing element for performing air latent heat processing is
10 provided in a distribution passageway for the distribution of adsorption or regeneration air
which passes through the adsorption heat exchanger.

* * * *